P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

August 28, 1997
Report 0047.R18

Mr. L.B. Patel
Mr. P. Gupta
VIP Service
385 Century Circle
Danville, CA 94526

SUBJECT: **Quarterly Groundwater Monitoring and Sampling Report**
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

Gentlemen:

P&D Environmental a division of Paul H. King, Inc. (P&D) is pleased to present this report documenting the results of the quarterly monitoring and sampling of groundwater monitoring wells MW1, MW2, and MW3 at the subject site. This work was performed in accordance with P&D's proposal 050897.P1 dated May 8, 1997 and requirements set forth in a letter from Mr. Scott Seery of the Alameda County Department of Environmental Health (ACDEH) dated March 18, 1994 for the subject site. Based upon a telephone conversation with Mr. Seery on July 31, 1995, the sampling of monitoring wells MW1 and MW2 was reduced to semi-annually. In addition, no further analysis for TPH-D will be performed for well MW3. **All three wells were monitored and sampled during this quarter.**

The monitoring and sampling was performed on August 12, 1997. The reporting period is for May through July, 1997. A Site Location Map (Figure 1) and Site Plan (Figure 2) are attached with this report.

BACKGROUND

It is P&D's understanding that the site was purchased by VIP Service in December, 1984. Prior to purchase of the property by VIP Service, the site was operated as a retail gasoline station for an undetermined period of time. The site was operated as a retail gasoline station from the time of purchase by VIP Service until the tanks were removed by Accutite on April 26, 1993. The underground tank system consisted of three 10,000 gallon capacity gasoline tanks, two dispenser islands, and one 550 gallon waste oil tank. It is P&D's understanding that the fuel tanks contained leaded and unleaded gasoline while in use by VIP Service. In addition, VIP Service reported that diesel fuel was not stored at the site at any time.

It is P&D's understanding that at the time of tank removal, eight soil samples were collected from the sidewalls of the fuel tank pit, and one soil sample was collected from the waste oil tank pit. Groundwater was reported to have been encountered in the fuel tank pit at a depth of approximately 11 feet. One water sample was collected from the water in the fuel tank pit. On April 28, 1993 Accutite returned to the site and collected seven soil samples from beneath the dispenser islands.

All of the samples were analyzed at Sequoia Analytical in Redwood City, California for Total Petroleum Hydrocarbons as Gasoline (TPH-G); Benzene, Toluene, Ethylbenzene and Xylenes (BTEX); and for Total Lead. In addition, the samples from the waste oil tank were analyzed for Total Petroleum Hydrocarbons as Diesel (TPH-D); Total Oil and Grease (TOG); Halogenated Volatile Organic Compounds using EPA Method 8010; Semi-Volatile Organic Compounds using EPA Method 8270; and for the metals Cadmium, Chromium, Lead, Nickel and Zinc.

The results of the soil samples collected from the fuel tank pit showed TPH-G concentrations ranging from 120 to 6,200 parts per million (ppm), and total lead results ranging from not detected to 13 ppm. The results of the water sample from the fuel tank pit showed 140 ppm TPH-G, and 0.095 ppm total lead.

The results of the soil samples collected from beneath the fuel dispensers showed TPH-G values ranging from not detected to 4.7 ppm, and total lead values ranging from not detected to 7.6 ppm.

The results of the sample collected from the waste oil tank pit showed 670 ppm TPH-G; 410 ppm TPH-D; 1,300 ppm TOG; 0.023 ppm 1,2-Dichloroethane and 0.0094 ppm Tetrachloroethylene in the EPA Method 8010 analysis; 2.7 ppm 2-Methylnapthalene and 3.8 ppm Naphthalene in the EPA Method 8270 analysis; and various metals concentrations, none of which exceeded ten times their respective STLC values. The laboratory identified the TPH-D results as being a "non-diesel mix," and indicated that the compounds reported as diesel were diesel-range gasoline and diesel-range oil compounds.

Between August 27 and November 1, 1993 P&D personnel collected stockpiled soil samples for stockpiled soil disposal characterization and oversaw the excavation of approximately 680 cubic yards of soil from the vicinity of the fuel tank pit in an effort to remove petroleum hydrocarbon-impacted soil. In addition, during this time the soil which was stockpiled by Accutite during the tank removal activities and during the subsequent soil excavation activities was disposed of at an appropriate disposal facility, and the tank pit backfilled and compacted. A total of eight confirmation soil samples were collected from the sidewalls of the tank pit on November 19, 1993 at a depth of 10 feet after over-excavation and prior to backfilling. The analytical results of the samples ranged from 33 to 3,200 ppm TPH-G. The sample collection locations are shown on the attached Site Plan, Figure 3. Documentation of excavation, stockpiled soil characterization and disposal, and backfilling of the pit are provided in P&D's report 0047.R1 dated January 24, 1994. The samples results associated with the removal of the tanks by Accutite are also summarized in P&D's report 0047.R1.

On November 10, 1993 P&D personnel oversaw the installation of three groundwater monitoring wells, designated as MW1 through MW3, and one exploratory soil boring, designated as B1, at the subject site. The wells were developed on November 12 and sampled on November 16, 1993. The results of the water samples showed that TPH-G was not detected in wells MW1 and MW2, and that BTEX was not detected in MW2. In well MW1, 0.0022 ppm of benzene was detected. In well MW3, TPH-G was detected at 12 ppm; BTEX was detected with benzene detected at 3.3 ppm; TRPH was not detected; EPA Method 8010 compounds were not detected except for 0.027 ppm 1,2-Dichloroethane; and EPA Method 8270 compounds were not detected except for 0.009 ppm Phenol, 0.006 ppm Benzyl Alcohol, 0.006 2-Methylphenol, 0.007 ppm 2,4-Dimethylphenol, 0.088 ppm Benzoic Acid, 0.042 ppm Naphthalene, and 0.015 2-Methylnapthalene.

Documentation of the monitoring well and soil boring installation and associated sample results are presented in P&D's report 0047.R2 dated January 24, 1994. The locations of the monitoring wells are shown in Figure 2.

In response to a letter dated March 18, 1994 from Mr. Scott Seery ACDEH which commented upon the results of the initial groundwater sampling associated with the installation of the monitoring wells at the subject site, a quarterly groundwater monitoring and sampling program was initiated.

FIELD ACTIVITIES

On August 12, 1997 all three of the monitoring wells at the site were monitored and sampled by P&D personnel. The wells were monitored for depth to water and the presence of free product or sheen. Depth to water was measured to

the nearest 0.01 foot using an electric water level indicator. The presence of free product or sheen was evaluated using a transparent bailer. No free product or sheen was observed in any of the wells. However, petroleum hydrocarbon odors were detected in well MW3. Depth to water level measurements are presented in Table 1.

Prior to sampling, the monitoring wells were purged of a minimum of three casing volumes of water. During purging operations, the field parameters of electrical conductivity, temperature and pH were monitored. Once the field parameters were observed to stabilize, and a minimum of three casing volumes had been purged, a water sample was collected using a clean Teflon bailer.

The water samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles, as appropriate, which were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure that no air bubbles were present.

The VOA vials and bottles were labeled and then transferred to a cooler with ice, until they were transported to McCampbell Analytical, Inc. in Pacheco, California. McCampbell Analytical, Inc. is a State-certified hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report. Water purged from the wells during purging operations was stored in a DOT-approved 55-gallon drum at the site pending appropriate disposal.

HYDROGEOLOGY

Water levels were measured in the monitoring wells once during the quarter. The measured depth to water at the site on August 12, 1997 ranged from 8.85 to 9.39 feet. Groundwater levels have decreased in wells MW1, MW2, and MW3 by 1.02, 0.96, and 0.86 feet, respectively, since the previous monitoring on April 25, 1997. The calculated groundwater flow direction at the site on August 12, 1997 was to the west-northwest with a gradient of 0.0075. The groundwater gradient has decreased, and the groundwater flow direction has shifted towards the north since the previous quarterly monitoring on April 25, 1997.

Groundwater level data collected during the quarter are presented in Table 1. The groundwater flow direction at the site on August 12, 1997 is shown on Figure 2.

LABORATORY RESULTS

The groundwater samples from monitoring wells MW1, MW2, and MW3 were analyzed for TPH-G using EPA Method 5030 in conjunction with Modified EPA Method 8015 (GCFID), BTEX and MTBE using EPA Method 8020. In addition, the groundwater sample from MW3 (near the waste oil tank) was analyzed for Halogenated Volatile Organic Compounds using EPA Method 8010 and for Semi-volatile Organic Compounds using EPA Method 8270.

The laboratory analytical results of the groundwater samples collected from wells MW1 and MW2 show that TPH-G, BTEX and MTBE were not detected. The laboratory analytical results of the groundwater sample collected from monitoring well MW3 show that TPH-G was detected at a concentration of 16 ppm; benzene was detected at a concentration of 4.2 ppm; MTBE was not detected; EPA Method 8010 compounds were not detected except for 0.0091 ppm 1,2-Dichloroethane; and EPA Method 8270 compounds were not detected except for Bis(2-ethylhexyl) Phthalate, Naphthalene, and 2-Methylnaphthalene which were detected at concentrations of 0.021, 0.087, and 0.024 ppm, respectively.

DISCUSSION AND RECOMMENDATIONS

Based on the laboratory analytical results of the water samples collected from the monitoring wells, P&D recommends that the quarterly groundwater monitoring of wells MW1, MW2, and MW3, the quarterly sampling of well MW3 and the semi-annual sampling of wells MW1 and MW2 be continued. During the next quarter, all of the wells should be monitored and well MW3 should be sampled.

DISTRIBUTION

Copies of this report should be distributed to Mr. Scott Seery at the Alameda County Department of Environmental Health, and to Mr. Kevin Graves at the San Francisco Bay Regional Water Quality Control Board. Copies of the report should be accompanied by a transmittal letter signed by the principal executive officer of VIP Service.

LIMITATIONS

This report was prepared solely for the use of VIP Service. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgement based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgement based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D ENVIRONMENTAL

Paul H. King

Paul H. King
Hydrogeologist

Don R. Braun
Certified Engineering Geologist
Registration No. : 1310
Expires: 6/30/98

PHK
0047.R18

Attachments: Tables 1 & 2
Site Location Map (Figure 1)
Site Plan (Figure 2)
Groundwater Monitoring/Well Purging Data Sheets
Laboratory Analytical Reports
Chain of Custody Documentation

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	08/12/97	180.83	9.39	171.44
	04/25/97		8.37	172.46
	01/31/97		7.62	173.21
	07/19/96		8.81	172.02
	04/23/96		8.17	172.66
	01/17/96		9.66	171.17
	10/26/95		10.00	170.83
	08/15/95		9.23	171.60
	05/02/95		8.56	172.27
	01/30/95		9.50	171.33
	10/31/94		11.55	169.28
	07/29/94		10.86	169.97
	04/25/94		10.70	170.13
	11/16/93		11.63	169.20
	11/12/93*		11.53	169.30
MW2	08/12/97	179.70	9.06	170.64
	04/25/97		8.10	171.60
	01/31/97		7.22	172.48
	07/19/96		8.57	171.13
	04/23/96		7.85	171.85
	01/17/96		8.94	170.76
	10/26/95		9.68	170.02
	08/15/95		8.91	170.79
	05/02/95		8.17	171.53
	01/30/95		8.68	171.02
	10/31/94		10.99	168.71
	07/29/94		10.34	169.36
	04/25/94		10.04	169.66
	11/16/93		11.10	168.60
	11/12/93*		10.95	168.75
MW3	08/12/97	178.98	8.85	170.13
	04/25/97		7.99	170.99
	01/31/97		7.30	171.68
	07/19/96		8.42	170.56
	04/23/96		7.76	171.22
	01/17/96		8.61	170.37
	10/26/95		9.39	169.59
	08/15/95		8.62	170.36
	05/02/95		8.04	170.94
	01/30/95		8.46	170.52
	10/31/94		10.58	168.40
	07/29/94		10.03	168.95
	04/25/94		9.64	169.34
	11/16/93		10.63	168.35
	11/12/93*		10.66	168.32

NOTES:

Elevations are in feet Mean Sea Level.
ft. = Feet.
* = Depth to water measurements prior to groundwater monitoring well development.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes
			Samples Collected on August 12, 1997			
MW1	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3+	NA	16	4.2	0.45	0.54	1.9
			Samples Collected on April 25, 1997			
MW1	NA	NA	NA	NA	NA	NA
MW2	NA	NA	NA	NA	NA	NA
MW3++	NA	30	5.3	0.52	0.95	3.0
			Samples Collected on January 31, 1997			
MW1	NA	ND	ND	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3+++	NA	5.5	1.6	0.10	0.19	0.41

NOTES:
TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
+ = In MW3, MTBE was not detected; EPA Method 8010 compounds were not detected except for 0.0091 ppm 1,2-Dichloroethane; and EPA Method 8270 compounds were not detected except for Bis(2-ethylhexyl) Phthalate, Naphthalene, and 2-Methylnaphthalene which were detected at concentrations of 0.021, 0.087, and 0.024 ppm, respectively.
++ = In MW3, MTBE was not detected; EPA Method 8010 compounds were not detected except for 0.012 ppm 1,2 Dichloroethane; and EPA Method 8270 compounds were not detected except for Phenol, 4-Methylphenol, 2,4-Dimethylphenol, Naphthalene, and 2-Methylnaphthalene which were detected at concentrations of 0.0028, 0.0024, 0.0028, 0.066 ppm, and 0.015 ppm, respectively.
+++ = In MW3, MTBE was detected at a concentration of 0.065 ppm; EPA Method 8010 compounds were not detected except for 0.014 ppm 1,2 Dichloroethane; and EPA Method 8270 compounds were not detected except for Phenol, 2,4-Dimethylphenol, Naphthalene, and 2-Methylnaphthalene which were detected at concentrations of 0.0094, 0.0028, 0.031, and 0.0048 ppm, respectively.
Results are in parts per million (ppm), unless otherwise specified.

tentative MTBE hit
i.e., no GC/MS confirmation

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes
			Samples Collected on July 19, 1996			
MW1	NA	NA	NA	NA	NA	NA
MW2	NA	NA	NA	NA	NA	NA
MW3++++	NA	18	4.8	0.61	0.76	2.8
			Samples Collected on April 23, 1996			
MW1	NA	ND	ND	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3+++++	NA	9.7	2.9	0.17	0.38	0.68
			Samples Collected on January 17, 1996			
MW1	NA	NA	NA	NA	NA	NA
MW2	NA	NA	NA	NA	NA	NA
MW3@	NA	21	4.1	0.37	0.52	1.5

NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
++++ =In MW3, EPA Method 8010 compounds were not detected; EPA Method 8270 compounds were not detected except for 0.0022 ppm 2,4-Dimethylphenol, 0.1 ppm Naphthalene, and 0.022 ppm 2-Methylnaphthalene. The EPA Method 8020 showed that MTBE was detected in MW3 at a concentration of 0.21 ppm.
+++++ = In MW3, EPA 8010 compounds were not detected except for 0.0051 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for Naphthalene and Phenol which were detected at concentrations of 0.056 and 0.025 ppm, respectively. The EPA Method 8020 results showed that MTBE was not detected in MW1 or MW2, and was detected in MW3 at a concentration of 0.15 ppm.
@ = In MW3, EPA 8010 compounds were not detected except for 0.011 ppm 1,2 Dichloroethane; EPA 8270 compounds were not detected except for 0.0022 ppm Phenol, 0.0051 ppm 4-Methylphenol, 0.0029 ppm 2,4-Dimethylphenol, 0.032 ppm Naphthalene, and 0.010 ppm 2-Methylnaphthalene.
Results are in parts per million (ppm), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes
			Samples Collected on October 26, 1995			
MW1@@	NA	ND	ND	ND	ND	ND
MW2@@	NA	ND	ND	ND	ND	ND
MW3@@	NA	19	4.0	0.48	0.64	1.8
			Samples Collected on August 15, 1995			
MW1	NA	NA	NA	NA	NA	NA
MW2	NA	NA	NA	NA	NA	NA
MW3@@@	NA	7.0	2.4	0.23	0.26	0.73
			Samples Collected on May 2, 1995			
MW1	NA	ND	ND	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3@@@@	0.84	18	5.4	0.39	0.65	1.7

NOTES:
TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
@@ = In MW3, EPA 8010 compounds were not detected except for 0.011 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.043 ppm Naphthalene. The EPA Method 8020 results showed that MTBE was not detected in MW1 or MW2, and was detected in MW3 at a concentration of 0.24 ppm.

@@@ = EPA 8010 compounds were not detected except for 0.0091 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.003 ppm 4-Methylphenol, 0.005 ppm 2,4-Dimethyl Phenol, 0.019 ppm Naphthalene, and 0.003 ppm 2-Methylnaphthalene.
@@@@= Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.014 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.010 ppm 2-Methyl naphthalene and 0.062 ppm Naphthalene.
Results are in parts per million (ppm), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes
			Samples Collected on January 30, 1995			
MW1	NA	ND	ND	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3@@@@@	0.70	24	7.6	0.35	0.90	2.2
			Samples Collected on October 31, 1994			
MW1	NA	ND	ND	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3#	0.60	8.7	2.6	0.26	0.32	0.92
			Samples Collected on July 29, 1994			
MW1	NA	ND	0.0012	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3##	0.67	6.3	2.0	0.13	0.22	0.52

NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
@@@@@= Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.018 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.014 ppm 2-Methyl naphthalene and 0.11 ppm Naphthalene.
= Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.019 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.008 ppm 2-Methyl naphthalene, 0.047 ppm Naphthalene, and 0.002 ppm Bis(2-Ethylhexyl) Phthalate.
= Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.0077 ppm 1,2-Dichloroethane; EPA 8270 compounds not detected except for 0.008 ppm 2-Methylnaphthalene and 0.044 ppm Naphthalene.
Results are in parts per million (ppm), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes
			Samples Collected on April 25, 1994			
MW1	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3###	2.1	17	4.8	0.47	0.29	1.6
			Samples Collected on November 16, 1993			
MW1	NA	ND	0.0022	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3####	NA	12	3.3	0.66	0.24	1.6

NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
= Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.28 ppm 1,2-Dichloroethane; EPA 8270 compounds not detected except for 0.013 ppm 2-Methylnapthalene and 0.084 ppm Naphthalene.
= TRPH not detected; EPA 8010 compounds not detected except for 0.027 ppm 1,2-Dichloroethane; EPA 8270 compounds not detected except for 0.009 ppm Phenol, 0.006 ppm Benzyl Alcohol, 0.006 2-Methylphenol, 0.007 ppm 2,4-Dimethylphenol, 0.088 ppm Benzoic Acid, 0.042 ppm Naphthalene, and 0.015 ppm 2-Methylnapthalene.
Results are in parts per million (ppm), unless otherwise specified.

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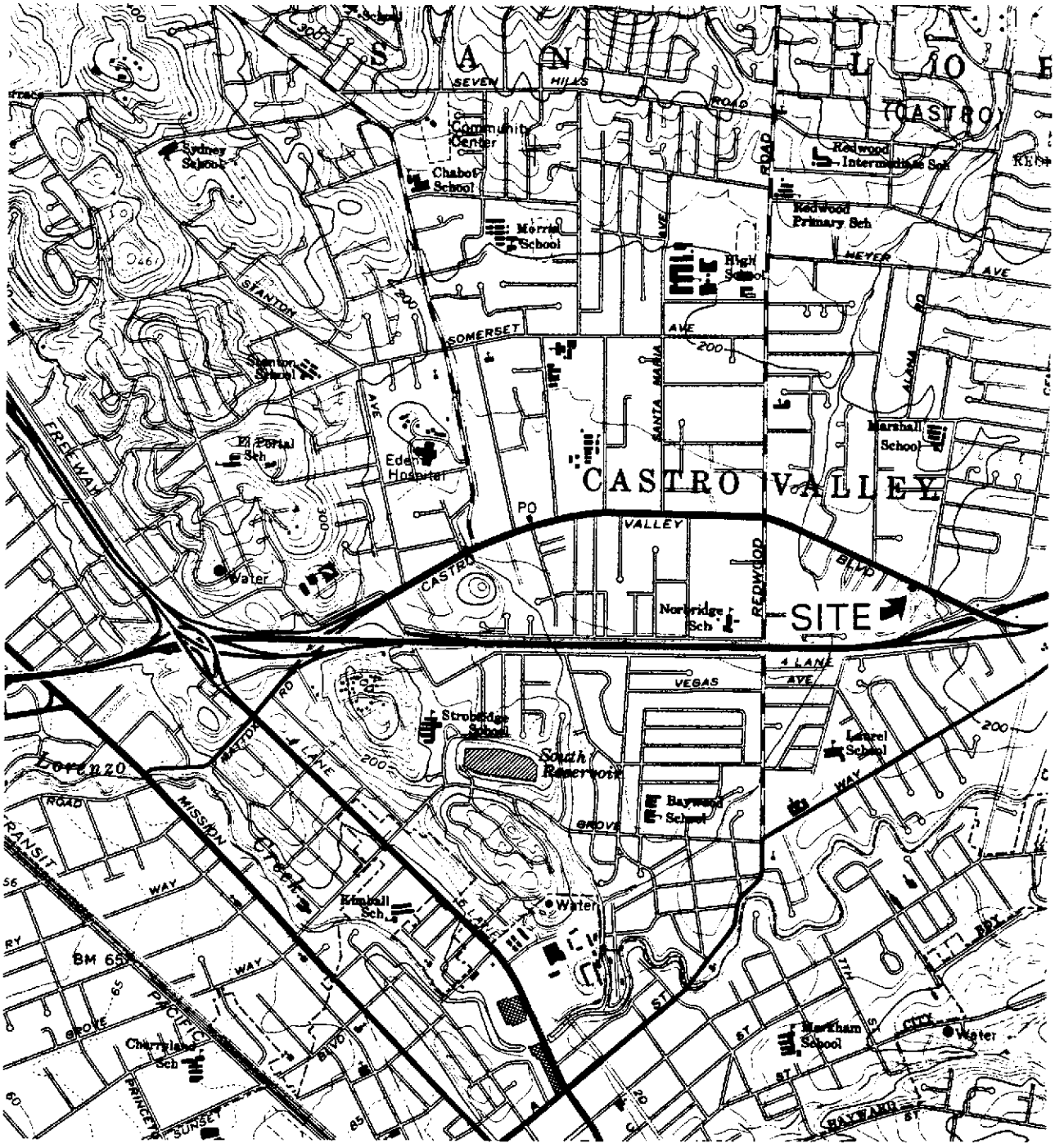


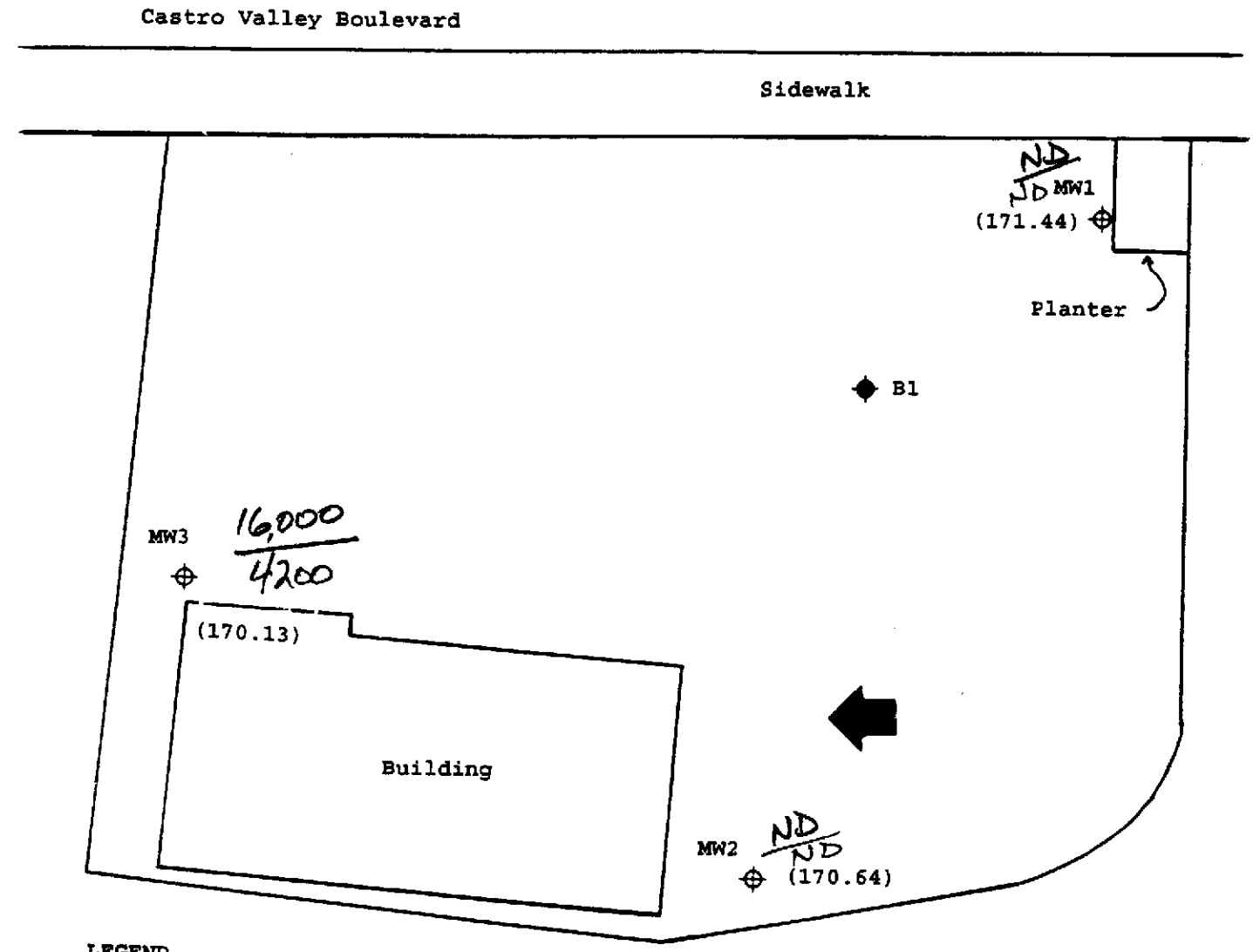
Base Map From
U.S. Geological Survey
Hayward, Calif.
7.5 Minute Quadrangle
Photorevised 1980

N

Scale in Feet
0 1000 2000 3000

Figure 1
SITE LOCATION MAP
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916



Base Map From
P&D Environmental
October, 1993

Figure 2
SITE PLAN
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name VIP Service
Job No. 0047
TOC to Water (ft.) 9.39
Well Depth (ft.) 20.0
Well Diameter 2"
Gal./Casing Vol. 1.7

Well No. MW1
Date 08/12/97
Sheen None
Free Product Thickness ¢
Sample Collection Method
Teflon Bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µS/cm)
11:14	0.9	7.80	60.5	1.55 x1000
11:17	1.8	7.64	62.5	1.40
11:20	2.7	7.50	63.0	1.38
11:24	3.6	7.43	64.5	1.40
11:27	4.5	7.38	64.3	1.41
11:30	5.4	7.30	65.1	1.40
11:45	Sampled			

NOTES: AOC-
Well was purged using Honda pump & foot valve.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name VIP Service
Job No. 6047
TOC to Water (ft.) 9.06
Well Depth (ft.) 20.0
Well Diameter 2"
Gal./Casing Vol. 1.8

Well No. MW2
Date 8/12/97
Sheen None
Free Product Thickness ϕ
Sample Collection Method
Teflon Bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µs/cm)
12:19	0.9	7.30	64.1	2.45 x1000
12:22	1.8	7.28	65.2	2.35
12:25	2.7	7.26	64.8	2.30
12:29	3.6	7.24	65.5	2.27
12:32	4.5	7.22	65.0	2.20
12:35	5.4	7.20	64.7	2.20
12:50	Sampled			

NOTES: AOG
Well was purged using Honda pump & footvalve.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name VIP Service
Well No. MW3
Job No. 0047
Date 8/12/97
TOC to Water (ft.) 8.85
Sheen I
Well Depth (ft.) 20.0
Free Product Thickness ϕ
Well Diameter 2"
Sample Collection Method
Gal./Casing Vol. 1.8
Teflon Bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µs/cm)
1:20	0.9	7.45	63.2	3.10 X1000
1:23	1.8	7.32	64.0	3.09
1:26	2.7	7.30	64.2	3.05
1:29	3.6	7.30	63.8	2.95
1:32	4.5	7.28	63.7	2.90
1:30	8.4	7.28	63.8	2.90
1:45	Sampled			

NOTES: AOG
Well was purged using Honda pump & foot-valve
Strong petroleum hydrocarbon odors in purged water.

PURGE10.92

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

P&D Environmental	Client Project ID: #0047; VIP Service	Date Sampled: 08/12/97
4020 Panama Court		Date Received: 08/12/97
Oakland, CA 94611	Client Contact: Paul King	Date Extracted: 08/15/97
	Client P.O:	Date Analyzed: 08/15/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
79681	MW1	W	ND	ND	ND	ND	ND	ND	104
79682	MW2	W	ND	ND	ND	ND	ND	ND	106
79683	MW3	W	16,000,a	ND<330	4200	450	540	1900	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

For Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.

110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

P&D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: #0047; VIP Service	Date Sampled: 08/12/97 Date Received: 08/12/97
	Client Contact: Paul King	Date Extracted: 08/13/97
	Client P.O:	Date Analyzed: 08/13/97

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	79683			
Client ID	MW3			
Matrix	W			
Compound	Concentration*			
Bromodichloromethane	ND			
Bromoform[b]	ND			
Bromomethane	ND			
Carbon Tetrachloride[c]	ND			
Chlorobenzene	ND			
Chloroethane	ND			
2-Chloroethyl Vinyl Ether[d]	ND			
Chloroform[e]	ND			
Chloromethane	ND			
Dibromochloromethane	ND			
1,2-Dichlorobenzene	ND			
1,3-Dichlorobenzene	ND			
1,4-Dichlorobenzene	ND			
Dichlorodifluoromethane	ND			
1,1-Dichloroethane	ND			
1,2-Dichloroethane	9.1			
1,1-Dichloroethene	ND			
cis 1,2-Dichloroethene	ND			
trans 1,2-Dichloroethene	ND			
1,2-Dichloropropane	ND			
cis 1,3-Dichloropropene	ND			
trans 1,3-Dichloropropene	ND			
Methylene Chloride[f]	ND<2			
1,1,2,2-Tetrachloroethane	ND			
Tetrachloroethene	ND<1			
1,1,1-Trichloroethane	ND			
1,1,2-Trichloroethane	ND			
Trichloroethene	ND			
Trichlorofluoromethane	ND			
Vinyl Chloride[g]	ND			
% Recovery Surrogate	106			
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe

Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

for Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 08/15/97 Matrix: Water

Analyte	Concentration (mg/L) Sample #(79760)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	96.8	98.9	100.0	96.8	98.9	2.1
Benzene	0.0	9.1	9.4	10.0	91.0	94.0	3.2
Toluene	0.0	9.9	10.1	10.0	99.0	101.0	2.0
Ethyl Benzene	0.0	10.1	10.6	10.0	101.0	106.0	4.8
Xylenes	0.0	30.7	32.2	30.0	102.3	107.3	4.8
TPH (diesel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR EPA 8010/8020/EDB

Date: 08/13/97-08/14/97 Matrix: Water

Analyte	Concentration (ug/L) Sample #(79677)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
1,1-DCE	0.0	8.5	8.6	10.0	85	86	0.8
Trichloroethene	0.0	8.9	9.2	10.0	89	92	3.0
EDB	0.0	8.6	9.2	10.0	86	92	6.7
Chlorobenzene	0.0	9.4	9.9	10.0	94	99	5.1
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobz (PID)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

McCAMPBELL ANALYTICAL
110 2ND AVE. SOUTH, #D7
PACHECO, CA 94553

ATTN: EDWARD HAMILTON
CLIENT PROJ. ID: 9233
CLIENT PROJ. NAME: PD-0047

REPORT DATE: 08/20/97

DATE(S) SAMPLED: 08/12/97

DATE RECEIVED: 08/13/97

AEN WORK ORDER: 9708141

PROJECT SUMMARY:

On August 13, 1997, this laboratory received 1 water sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

McCAMPBELL ANALYTICAL

SAMPLE ID: MW-3
AEN LAB NO: 9708141-01
AEN WORK ORDER: 9708141
CLIENT PROJ. ID: 9233

DATE SAMPLED: 08/12/97
DATE RECEIVED: 08/13/97
REPORT DATE: 08/20/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	08/15/97
Semi-Volatile Organics	EPA 8270B				
Acenaphthene	83-32-9	ND	10	ug/L	08/18/97
Acenaphthylene	208-96-8	ND	10	ug/L	08/18/97
Anthracene	120-12-7	ND	10	ug/L	08/18/97
Benzidine	92-87-5	ND	50	ug/L	08/18/97
Benzoic Acid	65-85-0	ND	50	ug/L	08/18/97
Benzo(a)anthracene	56-55-3	ND	10	ug/L	08/18/97
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	08/18/97
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	08/18/97
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	08/18/97
Benzo(a)pyrene	50-32-8	ND	10	ug/L	08/18/97
Benzyl Alcohol	100-51-6	ND	20	ug/L	08/18/97
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	08/18/97
Bis(2-choroethyl) Ether	111-44-4	ND	10	ug/L	08/18/97
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	08/18/97
Bis(2-ethylhexyl) Phthalate	117-81-7	21 *	10	ug/L	08/18/97
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	08/18/97
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	08/18/97
4-Chloroaniline	106-47-8	ND	20	ug/L	08/18/97
2-Chloronaphthalene	91-58-7	ND	10	ug/L	08/18/97
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	08/18/97
Chrysene	218-01-9	ND	10	ug/L	08/18/97
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	08/18/97
Dibenzofuran	132-64-9	ND	10	ug/L	08/18/97
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	08/18/97
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	08/18/97
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	08/18/97
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	08/18/97
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	08/18/97
Diethyl Phthalate	84-66-2	ND	10	ug/L	08/18/97
Dimethyl Phthalate	131-11-3	ND	10	ug/L	08/18/97
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	08/18/97
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	08/18/97
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	08/18/97
Fluoranthene	206-44-0	ND	10	ug/L	08/18/97
Fluorene	86-73-7	ND	10	ug/L	08/18/97
Hexachlorobenzene	118-74-1	ND	10	ug/L	08/18/97
Hexachlorobutadiene	87-68-3	ND	10	ug/L	08/18/97
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	08/18/97
Hexachloroethane	67-72-1	ND	10	ug/L	08/18/97

McCAMPBELL ANALYTICAL

SAMPLE ID: MW-3
AEN LAB NO: 9708141-01
AEN WORK ORDER: 9708141
CLIENT PROJ. ID: 9233

DATE SAMPLED: 08/12/97
DATE RECEIVED: 08/13/97
REPORT DATE: 08/20/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	08/18/97
Isophorone	78-59-1	ND	10	ug/L	08/18/97
2-Methylnaphthalene	91-57-6	24 *	10	ug/L	08/18/97
Naphthalene	91-20-3	87 *	10	ug/L	08/18/97
2-Nitroaniline	88-74-4	ND	50	ug/L	08/18/97
3-Nitroaniline	99-09-2	ND	50	ug/L	08/18/97
4-Nitroaniline	100-01-6	ND	50	ug/L	08/18/97
Nitrobenzene	98-95-3	ND	10	ug/L	08/18/97
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	08/18/97
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	08/18/97
Phenanthrene	85-01-8	ND	10	ug/L	08/18/97
Pyrene	129-00-0	ND	10	ug/L	08/18/97
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	08/18/97
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	08/18/97
2-Chlorophenol	95-57-8	ND	10	ug/L	08/18/97
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	08/18/97
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	08/18/97
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	08/18/97
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	08/18/97
2-Methylphenol	95-48-7	ND	10	ug/L	08/18/97
4-Methylphenol	106-44-5	ND	10	ug/L	08/18/97
2-Nitrophenol	88-75-5	ND	10	ug/L	08/18/97
4-Nitrophenol	100-02-7	ND	50	ug/L	08/18/97
Pentachlorophenol	87-86-5	ND	50	ug/L	08/18/97
Phenol	108-95-2	ND	10	ug/L	08/18/97
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	08/18/97
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	08/18/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9708141
CLIENT PROJECT ID: 9233

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spikes(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analyses.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behaviour, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrument performance.

D: Surrogates diluted out.

I: Interference.

!: Indicates result outside of established laboratory QC limits.

ANALYSIS: Semi-Volatile Organics

MATRIX: Water

METHOD BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/L
METHOD: EPA 8270B

LAB ID: BLNK 0815
PREPARED: 08/15/97
ANALYZED: 08/18/97

INSTR RUN: GCMS10\970818000000/5/
BATCH ID: BNAW081597
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	77.9			107	72.8	45	122		
Phenol-d5	(surr)	80.5			101	79.7	48	144		
Nitrobenzene-d5	(surr)	88.7			110	80.6	58	109		
2-Fluorobiphenyl	(surr)	81.7			101	80.9	62	133		
2,4,6-Tribromophenol	(surr)	81.4			103	79.0	53	131		
Terphenyl-d14	(surr)	103			101	102	59	135		
Phenol		ND		10						
2-Chlorophenol		ND		10						
1,4-Dichlorobenzene		ND		10						
N-Nitrosodi-n-propylamine		ND		10						
1,2,4-Trichlorobenzene		ND		10						
4-Chloro-3-methylphenol		ND		10						
Acenaphthene		ND		10						
4-Nitrophenol		ND		50						
2,4-Dinitrotoluene		ND		10						
Pentachlorophenol		ND		50						
Pyrene		ND		10						
Acenaphthylene		ND		10						
Anthracene		ND		10						
Benzidine		ND		50						
Benzoic Acid		ND		50						
Benzo(a)anthracene		ND		10						
Benzo(b)fluoranthene		ND		10						
Benzo(k)fluoranthene		ND		10						
Benzo(g,h,i)perylene		ND		10						
Benzo(a)pyrene		ND		10						
Benzyl Alcohol		ND		20						
Bis(2-chloroethoxy)methane		ND		10						
Bis(2-chloroethyl) Ether		ND		10						
Bis(2-chloroisopropyl) Eth		ND		10						
Bis(2-ethylhexyl) Phthalat		ND		10						
4-Bromophenyl Phenyl Ether		ND		10						
Butylbenzyl Phthalate		ND		10						
4-Chloroaniline		ND		20						
2-Chloronaphthalene		ND		10						
4-Chlorophenyl Phenyl Ethe		ND		10						
Chrysene		ND		10						
Dibenzo(a,h)anthracene		ND		10						
Dibenzofuran		ND		10						
Di-n-butyl Phthalate		ND		10						
1,2-Dichlorobenzene		ND		10						
1,3-Dichlorobenzene		ND		10						
3,3'-Dichlorobenzidine		ND		20						
Diethyl Phthalate		ND		10						
Dimethyl Phthalate		ND		10						
2,6-Dinitrotoluene		ND		10						
Di-n-octyl Phthalate		ND		10						
1,2-Diphenylhydrazine		ND		10						
Fluoranthene		ND		10						
Fluorene		ND		10						
Hexachlorobenzene		ND		10						
Hexachlorobutadiene		ND		10						
Hexachlorocyclopentadiene		ND		10						
Hexachloroethane		ND		10						
Indeno(1,2,3-cd)pyrene		ND		10						
Isophorone		ND		10						
2-Methylnaphthalene		ND		10						
Naphthalene		ND		10						
2-Nitroaniline		ND		50						
3-Nitroaniline		ND		50						
4-Nitroaniline		ND		50						
Nitrobenzene		ND		10						
N-Nitrosodimethylamine		ND		10						
N-Nitrosodiphenylamine		ND		10						

ANALYSIS: Semi-Volatile Organics

MATRIX: Water

METHOD BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/L
METHOD: EPA 8270B

LAB ID: BLNK 0815
PREPARED: 08/15/97
ANALYZED: 08/18/97

INSTR RUN: GCMS10\970818000000/5/
BATCH ID: BNAW081597
DILUTION: 1.00

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Phenanthrene	ND		10						
2,4-Dichlorophenol	ND		10						
2,4-Dimethylphenol	ND		10						
4,6-Dinitro-2-methylphenol	ND		50						
2,4-Dinitrophenol	ND		50						
2-Methylphenol	ND		10						
4-Methylphenol	ND		10						
2-Nitrophenol	ND		10						
2,4,5-Trichlorophenol	ND		10						
2,4,6-Trichlorophenol	ND		10						

LABORATORY CONTROL SAMPLES

SAMPLE TYPE: Laboratory Control Spike
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/L
METHOD: EPA 8270B

LAB ID: LCD 0815
PREPARED: 08/15/97
ANALYZED: 08/18/97

INSTR RUN: GCMS10\970818000000/7/5
BATCH ID: BNAW081597
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	86.6	77.9		107	80.9	45	122		
Phenol-d5	(surr)	87.7	80.5		101	86.8	48	144		
Nitrobenzene-d5	(surr)	94.5	88.7		110	85.9	58	109		
2-Fluorobiphenyl	(surr)	84.9	81.7		101	84.1	62	133		
2,4,6-Tribromophenol	(surr)	89.3	81.4		103	86.7	53	131		
Terphenyl-d14	(surr)	103	103		101	102	59	135		
Phenol		75.5	ND	10	100	75.5	44	126		
2-Chlorophenol		97.9	ND	10	100	97.9	50	145		
1,4-Dichlorobenzene		84.2	ND	10	100	84.2	51	132		
N-Nitrosodi-n-propylamine		122	ND	10	100	122	52	151		
1,2,4-Trichlorobenzene		87.7	ND	10	100	87.7	51	128		
4-Chloro-3-methylphenol		94.9	ND	10	100	94.9	52	149		
Acenaphthene		88.4	ND	10	100	88.4	58	139		
4-Nitrophenol		77.8	ND	50	100	77.8	30	152		
2,4-Dinitrotoluene		87.2	ND	10	100	87.2	60	128		
Pentachlorophenol		57.0	ND	50	100	57.0	30	160		
Pyrene		101	ND	10	100	101	40	130		

SAMPLE TYPE: Laboratory Control Spike
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/L
METHOD: EPA 8270B

LAB ID: LCS 0815
PREPARED: 08/15/97
ANALYZED: 08/18/97

INSTR RUN: GCMS10\970818000000/6/5
BATCH ID: BNAW081597
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	82.2	77.9		107	76.8	45	122		
Phenol-d5	(surr)	83.2	80.5		101	82.4	48	144		
Nitrobenzene-d5	(surr)	89.5	88.7		110	81.4	58	109		
2-Fluorobiphenyl	(surr)	82.2	81.7		101	81.4	62	133		
2,4,6-Tribromophenol	(surr)	84.7	81.4		103	82.2	53	131		
Terphenyl-d14	(surr)	100	103		101	99.0	59	135		
Phenol		68.7	ND	10	100	68.7	44	126		
2-Chlorophenol		90.4	ND	10	100	90.4	50	145		
1,4-Dichlorobenzene		76.7	ND	10	100	76.7	51	132		
N-Nitrosodi-n-propylamine		115	ND	10	100	115	52	151		
1,2,4-Trichlorobenzene		80.8	ND	10	100	80.8	51	128		
4-Chloro-3-methylphenol		87.0	ND	10	100	87.0	52	149		
Acenaphthene		82.9	ND	10	100	82.9	58	139		
4-Nitrophenol		69.9	ND	50	100	69.9	30	152		
2,4-Dinitrotoluene		78.9	ND	10	100	78.9	60	128		
Pentachlorophenol		50.8	ND	50	100	50.8	30	160		

ANALYSIS: Semi-Volatile Organics

MATRIX: Water

LABORATORY CONTROL SAMPLES

SAMPLE TYPE: Laboratory Control Spike
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/L
METHOD: EPA 8270B

LAB ID: LCS 0815
PREPARED: 08/15/97
ANALYZED: 08/18/97

INSTR RUN: GCMS10\970818000000/6/5
BATCH ID: BNAW081597
DILUTION: 1.00

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Pyrene	96.5	ND	10	100	96.5	40	130		

LABORATORY CONTROL DUPLICATES

SAMPLE TYPE: Laboratory Control Sample Duplicate
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/L
METHOD: EPA 8270B

LAB ID: LCR 0815
PREPARED: 08/15/97
ANALYZED: 08/18/97

INSTR RUN: GCMS10\970818000000/8/6
BATCH ID: BNAW081597
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	86.6	82.2		107	80.9	45	122		
Phenol-d5	(surr)	87.7	83.2		101	86.8	48	144		
Nitrobenzene-d5	(surr)	94.5	89.5		110	85.9	58	109		
2-Fluorobiphenyl	(surr)	84.9	82.2		101	84.1	62	133		
2,4,6-Tribromophenol	(surr)	89.3	84.7		103	86.7	53	131		
Terphenyl-d14	(surr)	103	100		101	102	59	135		
Phenol		75.5	68.7	10	100				9.43	30
2-Chlorophenol		97.9	90.4	10	100				7.97	30
1,4-Dichlorobenzene		84.2	76.7	10	100				9.32	30
N-Nitrosodi-n-propylamine		122	115	10	100				5.91	30
1,2,4-Trichlorobenzene		87.7	80.8	10	100				8.19	30
4-Chloro-3-methylphenol		94.9	87.0	10	100				8.69	30
Acenaphthene		88.4	82.9	10	100				6.42	30
4-Nitrophenol		77.8	69.9	50	100				10.7	30
2,4-Dinitrotoluene		87.2	78.9	10	100				9.99	30
Pentachlorophenol		57.0	50.8	50	100				11.5	30
Pyrene		101	96.5	10	100				4.56	30

SAMPLE SURROGATES

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/L
METHOD: EPA 8270B

LAB ID: 9708141-01A
PREPARED: 08/15/97
ANALYZED: 08/18/97

INSTR RUN: GCMS10\970818000000/9/
BATCH ID: BNAW081597
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	85.5			107	79.9	45	122		
Phenol-d5	(surr)	91.2			101	90.3	48	144		
Nitrobenzene-d5	(surr)	97.4			110	88.5	58	109		
2-Fluorobiphenyl	(surr)	87.3			101	86.4	62	133		
2,4,6-Tribromophenol	(surr)	97.9			103	95.0	53	131		
Terphenyl-d14	(surr)	113			101	112	59	135		

---------- End of Quality Control Report ----------

RISA

9708141

McCAMPBELL ANALYTICAL

110 2nd AVENUE, # D7
PACHECO, CA 94553

(510) 798-1620 FAX (510) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY ☐ ROUTINE

REPORT TO: ED HAMILTON BILL TO: MAI

PROJECT NUMBER: 9233 PROJECT NAME: PD-0047

PROJECT LOCATION:

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCL	HNO_3	ICE	OTHER
01A MW-3		8/12		1	LTR	X							X	
		"												

ANALYSIS REQUEST: EPA 601/8010; EPA 602/8020; EPA 608/8080; EPA 608/8080 - PCBs Only; EPA 624/8240/8260; EPA 625/8270 (X); CAM - 17 Metals; EPA - Priority Pollutant Metals; LUFT Metals; LEAD (7240/7421/239.2/6010); ORGANIC LEAD; RCI

OTHER

COMMENTS: 79683

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Jenny Milenic	8/13	1040	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
	8/13	1140	
RELINQUISHED BY:	DATE	TIME	RECEIVED BY LABORATORY: 8/13/97 1140
			Anna Gallegos

REMARKS:

P & D ENVIRONMENTAL
A Division of Paul H. King, Inc.
4020 Panama Court
Oakland, CA 94611
(510) 658-6916

9233XPD234

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
0047	VIP Service

SAMPLED BY: (PRINTED AND SIGNATURE) Ahmad Ghandour

	SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-Gas/BTEX/MTBE	EPA 8010	EPA 8270			PRESERVATIVE	REMARKS
x	MW1	8/12/97		Water		2	X					ICE	Normal Turn Around
x	MW2	"		"		2	X					"	" " "
✓	MW3	"		"		6	X	X	X			"	" " "
													79681
													79682
													79683

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Ahmad Ghandour	8/12/97	1520	Barbera #767
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Barbera	8/12	1725	Milenic MAI
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

TOTAL NO. OF SAMPLES (THIS SHIPMENT)	3
TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	10
LABORATORY:	McCampbell Analytical, Inc
LABORATORY CONTACT:	Ed Hamilton
LABORATORY PHONE NUMBER:	(510) 798-1620
SAMPLE ANALYSIS REQUEST SHEET ATTACHED:	( )YES (X)NO

	VOAs	O&G	METALS	OTHER
ICE/T° ✓				
GOOD CONDITION ✓				
HEAD SPACE ABSENT ✓				
PRESERVATION APPROPRIATE ✓				
CONTAINERS ✓				

REMARKS: VOA's preserved with HCl